

LYCH, N.M.

GREBEN', I.I., redaktor; GROZIN, B.D., redaktor; GUL'KO, M.M., redaktor;
LYCH, N.M., redaktor; ORLIKOV, M.L., redaktor; FAYNERMAN, I.D.,
redaktor; KHAYMOVICH, Ye.M., redaktor; SERDYUK, V.K., inzhener,
redaktor; KUDENSKIY, Ya.V., tekhnicheskiy redaktor.

[Automation in machine building] Avtomatizatsia v mashinostroeni.
Kiev, Gos.nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1955.
289 p. [Microfilm] (MLRA 9:1)

1. Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy
promyshlennosti. Kiyevskoye oblastnoye otdeleniye.
(Automation) (Mechanical engineering)

3-12-11/27

AUTHOR: *Lych, N.M.*
Lych, N.M., Learned Secretary of the Scientific Technical Council attached to the Ministry of Higher Education, Ukrainian SSR.

TITLE: Using the Experiences of the Best Scientific Collectives (Perenimat' opyt luchshikh nauchnykh kollektivov)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 12, pp 58 - 60 (USSR)

ABSTRACT: The Ministry of Higher Education, Ukrainian SSR, organized in last December a Scientific Technical Council for the coordination and control of researches conducted by higher educational institutions. This Council took as a basis the work of 16 expert commissions dealing with various branches of science. These commissions investigated the themes of 36 republican vuzes and decided to select 154 most important themes from 369 previously discussed. It was found that thematical plans submitted by vuzes did not include many scientific and technical problems which required an urgent solution. The commission stated further that professors and teachers of various institutions executed scientific work inferior to their possibilities and that some vuzes investigated problems which were not in accordance with their programs. It appeared as a result that the research plans of vuzes were not sufficiently coordinated, and the expert

Card 1/2

Using the Experiences of the Best Scientific Collectives

3-12-11/27

commissions decided to organize coordination conferences in order to distribute rationally the scientific forces and emphasized the necessity of information exchanges relating to completed researches.

ASSOCIATION: Nauchno-tekhnicheskly Soviet Ministerstva vysshego obrazovaniya Ukrainskoy SSR (Scientific and Technical Council of the Ministry of Higher Education of the Ukrainian SSR)

AVAILABLE: Library of Congress

Card 2/2

SOV-3-58-10-11/23

AUTHOR: Lych, N.M., Learned Secretary of the Scientific Technical Council, UkrSSR Ministry of Higher Education

TITLE: Problems of a Further Development of Research Work (Problemy dal'neyshego razvitiya issledovatel'skoy raboty). In the Higher Educational Institutions of the Ukraine (V vysshikh uchebnykh zavedeniyakh Ukrainy)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 10, pp 58 - 62 (USSR)

ABSTRACT: In accordance with the reorganization of the administration of industry and building, such institutes as the Khar'kov and L'vov Polytechnical and the Dnepropetrovsk Mining and other Institutes have become important scientific-engineering centers of the economic districts and republic. Recently, interest in theoretical problems of physics, mathematics, mechanics and radio-engineering has risen at Soviet vuzes, and the scientific staff is displaying considerable activity in this direction. The practice of approving research themes, established in 1957, has also stirred up scientific work. The plans for the most important research are now examined by expert commissions of the Scientific-Technical Council, Ukr SSR Ministry of Higher Education. The Board of the Ministry approves the summary plan and distributes it

Card 1/3

Problems of a Further Development of Research Work.
tional Institutions of the Ukraine

SOV-3-58-10-11/23
In the Higher Educa-

among the vuzes and other organizations. As a result greater responsibility is shown when choosing the theme of research, more attention is paid to complex themes and the material resources assigned for scientific work are better utilized. The author tells of 30 special laboratories established at the higher Ukrainian schools in 1957 and 1958, and of the funds assigned by various ministries, departments and the sovnarkhoz to the L'vov and Khar'kov Polytechnical Institutes, and the L'vov and Chernovtsy Universities for the organizing of more laboratories. Ukrainian vuzes have considerably intensified their connections with industry as is indicated by the growing number of orders given to the vuzes on a contract basis. In 1958, there were only 3 institutes not carrying out such orders, i.e. the Kiyev Financial-Economic, Odessa Credit-Economic and the Khar'kov Law Institute. Much research conducted on a contract basis is of great scientific value. For instance, the research into the dynamic phenomena in the transmissions of coal-cutters and coal combines carried out by the Chair of Mining Machines of the Donetskii industrial'nyy institut (Donets Industrial Institute). The author mentions a number of other scientific works conducted by the chairs of various institutes and em-

Card 2/3

SOV-3-58-10-11/23
Problems of a Further Development of Research Work. In the Higher Educational Institutions of the Ukraine

phasizes the help given by the enterprises to the vuzes. He also points to shortcomings in the vuzes scientific work. Out of 52 chairs of the L'vov Polytechnical Institute only 4 are performing economic contract work, and out of 35 engineering chairs of the Donetsk Industrial Institute - only 19. Yet, the amount of economy contract work (khozdogovornyye raboty) done by individual chairs exceeds that of large vuzes. The author stresses the necessity of better distributing the workload.

ASSOCIATION: Nauchno-tekhnicheskii soviet Ministerstva vysshego obrazovaniya USSR (Scientific-Technical Council of the UkrSSR Ministry of Higher Education)

Card 3/3

KHAYMOVICH, Ye.M., otv.red.; GUL'KO, M.M., red.; ZASLAVSKIY, S.Sh., red.;
LOPATA, A.Ya., red.; LYCH, N.M., red.; ORLIKOV, M.L., red.;
FAYNERMAN, I.D., red.; KHARAGORGIYEV, S.I., red.; V retsenziro-
vani i redaktirovani primamali uchastiye: GREBEN', I.I.;
ZAMANSKIY, S.M.; IVAKHNENKO, A.G.; MESEZHENIKOV, V.L.; MOSENKIS,
M.G.; FARBER, A.M.. SOROKA, M.S., red.izd-va.

[Mechanization and automation in the machinery industry] Mekha-
nizatsiia i avtomatizatsiia v mashinostroenii. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 286 p.

(MIRA 12:8)

1. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy
promyshlennosti. Kiyevskoye oblastnoye pravleniye.
(Automation) (Machinery industry)

LYCH, N.M.

Practice in operating automatic machine tools. Stan.i instr. 32
no.11:27-30 N '61. (MIRA 14:10)
(Machine tools--Numerical control)

LYCH, N.M.; CHIRKOV, V.G.

Why automatic machine tools stand idle. Mashinostroitel'
no.10:39-40 0 '61. (MIRA 14:9)
(Factory management)

LYCH, Nikolay Mikhaylovich; CHIRKOV, Vladimir Grigor'yevich; TAURIT,
G.E., dots., retsenzent; RIKBERG, D.B., red.; GORNOSTAYPOL'SKAYA,
M.S., tekhn. red.

[Improving the efficiency of automatic lathes] Povyshenie ef-
fektivnosti tokarnykh avtomatov. Moskva, Mashgiz, 1962. 158 p.
(MIRA 15:4)

(Lathes)

LYCH, N. M., kand. tekhn. nauk, dotsent; CHIRKOV, V. G., kand. ekonomicheskikh nauk

Increasing labor productivity by automation. Izv. vys. ucheb. zav.; mashinestr. no.7:200-208 '62. (MIRA 16:1)

1. Kiyevskiy politekhnicheskiy institut.

(Automation)

LYCH, N.M., kand.tekhn.nauk; CHIRKOV, V.G., kand.ekonom.nauk

Most important objectives of further mechanization and autozation of
automatic-lathe shops. Mekh,i avtom. proizv. 17 no.2:1-4 F '63.

(MIRA 16:2)

(Lathes)

(Automation)

LYCHAGIN, A. A.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 20/27

Authors : Maslov, P.G.; Prevratukhin, V.D.; Danilov, Yu. V.; and Lychagin, A.A.

Title : Oscillatory spectra of n-pentane

Periodical : Zhur. fiz. khim. 28/2, 328-336, Feb 1954

Abstract : The symmetry of an n-pentane C_5H_{12} molecule and the coefficients of its effect were determined. The basic frequencies of n-pentane were calculated and the interpretations are given in tables. It was confirmed (through calculation), that the number of valent oscillation frequencies of C - H¹ bonds should be at least seven and not four as mentioned in literature. It was found that the oscillation frequencies of C - C bonds of the linear C - C - C - C - C chain were, to a greater extent, generated by the oscillations of the C - C - C (φ) components and their reaction with the C - C bonds. Thirteen references: 9-USSR; 3-USA and 1-German (1935-1952). Tables; diagram.

Institution :

Submitted : May 8, 1953

PHASE I BOOK EXPLOITATION

815

Lychagin, Aleksey Sergeevich

Proyektirovaniye martenovskikh pechey (Design of Open-hearth Furnaces) Moscow, Metallurgizdat, 1958. 263 p. 3,300 copies printed.

Ed. of Publishing House: Lanovskaya, M.R.; Tech. Ed.: Attopovich, M.K.

PURPOSE: The book is intended for designers of open-hearth furnaces and for engineers working in open-hearth steel mills. It may be of use to students of metallurgical VUZES.

COVERAGE: The book provides data for design and construction of stationary and tilting open-hearth furnaces of 5 to 500 ton capacities having base and acid bottom linings. Parameters for the charging side of open-hearth and steel mill furnaces are presented. Examples of metallurgical and thermo-technical calculation of gas and fuel-oil heated open-hearth furnaces are given. The following Soviet design institutes are concerned with open-hearth furnaces: Stal'proyekt (State All-Union Design and Planning Institute of the Ministry of Ferrous Metallurgy), Gipromez (State Institute for the Design and Planning

Card 1/9

Design of Open-hearth Furnaces

of Metallurgical Plants), Giprostal (State Institute for Design and Planning of Steel Mills) and others. There are 30 references, all Soviet.

TABLE OF CONTENTS:

Foreword	4
Introduction	5
Ch. I. Basic Characteristics of Open-hearth Furnaces	8
1. Types of furnaces	8
2. Capacity of furnaces	9
3. Output of furnaces	12
4. Brief outline of open-hearth steel production in capitalist countries	12
Ch. II. Fuel and Thermal Load [Heat Consumption in Millions of kcal per hour] of Open-hearth Furnaces	19
1. Mazut and coal tar	19
2. Gaseous fuel	19
3. Producer gas of high calorific value	23

JarA-2/9

PHASE I BOOK EXPLOITATION

SOV/3642

Lychagin, Aleksey Sergeyeovich, and Mikhail Avksent'yevich Chernenko

Razvitiye konstruktsiy martenovskikh pechey (Development of Open-Hearth Furnace Construction) Moscow, Metallurgizdat, 1960. 52 p. Errata slip inserted. 2,150 copies printed.

Ed.: A. Ye. Livshits; Ed. of Publishing House: A. A. Vagin; Tech. Ed.: M. R. Kleyman.

PURPOSE: This book is intended for workers in metallurgical plants and planning organizations. It may also be used by students of metallurgical institutes and tekhnikums.

COVERAGE: The book contains a brief description of modern open-hearth furnace design and an analysis of methods of increasing productivity. The basic trends in design improvements for automation, repair work, and preassembly of sections are discussed. The advances to be made in open-hearth construction are also treated. No personalities are mentioned. There are 9 references, all Soviet.

~~Card 1/3~~

LYCHAGIN, Aleksey Sergeevich; VESELKOV, N.G., retsenzent; BUCROVA,
B.A., red.izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Design of open-hearth furnaces] Proektirovanie martenovskikh
pechei. Izd.2., ispr. i dop. Moskva, Metallurgizdat, 1963.
280 p. (MIRA 16:12)
(Open-hearth furnaces--Construction and design)

1. LYCHAGIN, G. A.
2. USSR (600)
4. Geology - Kerch Peninsula
7. Extinct mud volcanoes of the Kerch Peninsula. *Bul. MOIP. Otd. geol.* 27 no. 1952.

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

LYCHAGIN, G.A.; SAL'MAN, G.B.; CHUPRINA, N.Ye.

New data on the age and deposition conditions of "quartzites" in
East Crimea. Dokl. AN SSSR 107 no.2:302-305 Mr '56. (MIRA 9:7)

1. Predstavleno akademikom N.M. Strakhovym.
(Crimea--Quartzite)

AUTHOR: Lychagin, G.A.

SOV-5-58-3-8/39

TITLE: Contemporary Tectonic Movements Along the Western Shores of the Crimean Peninsula (Sovremennyye tektonicheskiye dvizheniya na zapadnom poberezh'ye Kryma)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytatelay prirody, Otdel geologicheskoy, 1958, Nr 3, pp 129-131 (USSR)

ABSTRACT: Based on geomorphological and tectonic studies, the author comes to the conclusion that the district of the Sasyk Lake near the town of Yevpatoriya is undergoing a process of sagging. The most recent sagging of this locality is connected with the deep Kalinovka depression. The author found, that in contrast to the other near-by lakes of the Al'minsk syncline, no changes as to the depth or shape of the Sasyk Lake could be observed, although there was and still is a strong erosive action on the steep cliffs which form a great part of the shore line. The author concluded that the Sasyk Lake is within the limits of a presently occurring sagging process.

Card 1/2

SOV-5-58-3-8/39

Contemporary Tectonic Movements Along the Western Shores of the Crimean Peninsula

There is 1 map.

1. Geology--Crimea
2. Earth--Configuration

Card 2/2

LYCHAGIN, G.A.

Geological structure and history of development of the Crimean
lowland. Trudy VNIIGI no.12:166-191 '58. (MIRA 12:3)
(Crimea--Geology)

GORDIYEVICH, Vyacheslav Afanas'yevich; KURISHKO, Vadim Arkad'yevich;
LYCHAGIN, Georgiy Aleksandrovich; RISHES, Yevgeniya
Aronovna; TKACHUK, Valentina Grigor'yevna, doktor geol.-
miner. nauk; MEL'NIK, A.F., red.; MONZHERAN, P.F., tekhn.
red.

[Hydrogeology of the Crimea and its oil and gas potentials]
Gidrogeologiya Kryma i perspektivy ego neftegazonosnosti.
Pod obshchei red. V.G.Tkachuk. Kiev, Izd-vo AN Ukr.SSR,
1963. 138 p. (MIRA 16:7)

1. Institut mineral'nykh resursov AN Ukr.SSR (for Tkachuk,
Kurishko).
(Crimea—Petroleum geology) (Crimea—Water, Underground)

LYCHAGIN, N.F., inzhener.

Taking stock of cut peat extracted by machines UFF-2. Torf. prom. 30 no.
5:16 My '53. (MLRA 6:5)

1. Torfopredpriyatiye imeni Klassona.

(Peat industry)

40639

24.7000

S/139/62/000/004/016/018
E039/E420

AUTHORS: Agafonova, Ye.N., Lychagin, N.I.
TITLE: On the theory of the thermo-effect in atomic
semiconductors
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika,
no.4, 1962, 173-175

TEXT: Using the anisotropic model for semiconductors the thermal emf and thermal conductivity are calculated for atomic semiconductors taking into account the effect of trapped phonon carriers. The distribution function for the carrier current and the heat flow in the presence of a field E_x and with a temperature gradient dT/dx is given for the isotropic model. For the anisotropic model the same distribution function is obtained but with the carrier energy ϵ defined by an ellipsoidal function. The thermal emf is shown to be dependent on the coefficient of anisotropy. From the energy flux it is possible to determine the coefficient of electron thermal conductivity, which has two components. An expression for the thermal conductivity is obtained firstly for the isotropic case.
Card 1/2

S/139/62/000/004/016/018

On the theory of the thermo-effect ... E039/E420

It is then shown that in the anisotropic case the electron thermal conductivity is dependent on the coefficient of anisotropy and the effective mass of the carriers, the second component depends only on the ratio of the carrier masses. By measuring electron thermal conductivities at comparatively high temperatures (when the effect of trapping can be neglected) and also thermal conductivity and thermal emf at temperatures less than 10°K (when the trapping is dominant) it is possible to determine the effective mass of the carriers, the coefficient of anisotropy and the phonon relaxation time at low temperatures. ✓

ASSOCIATION: Ural'skiy gosuniversitet imeni A.M.Gor'kogo
(Ural State University imeni A.M.Gor'kiy)

SUBMITTED: May 29, 1961

Card 2/2

AVDUSHEVA, M.P.; VOSTRIKOVA, V.A.; LIPIANSKAYA, R.S.; SHIYAN, K.K. Prinsipali uchastiye; ANTONETS, L.G., nauchnyy sotrudnik; BELENKINA, S.G., nauchnyy sotrudnik; YEVLANOV, V.D., nauchnyy sotrudnik; SHAIN, B.S., nauchnyy sotrudnik; LYCHAGIN, N.S. SKAB, A.D., kand.istor.nauk, red.; VORONINA, V.M., red.; SHEVCHENKO, M.G., tekhn.red.

[History of the Kharkov Locomotive Plant from 1895 to 1917; collected documents and materials] Istoriiia Khar'kovskogo parovozostroitel'nogo zavoda, 1895-1917 gg.; sbornik dokumentov i materialov. Khar'kov, Khar'kovskoe obl.izd-vo, 1956. 378 p. (MIRA 14:1)

1. Kharkov. (Province) Gosudarstvennyy arkhiv. 2. Gosudarstvennyy arkhiv Khar'kovskoy oblasti (for Antoneta, Belenkina, Yevlanov, Shain). (Kharkov--Locomotives--Construction)

LYCHAGIN, N.S., inzh.

Operational reliability and durability of diesel locomotives
and diesel engines. Machinostroenie no.3:5-6 My-Je '64.
(MIRA 17:11)

LYCHAGIN, Viktor Alekseyevich; GRZHEGORZHEVSKIY, A.N., kand.
ekon. nauk, dots., red.; BOGDANOV, Ye.A., red.

[Comprehensive development of the industry of an economic
region and labor resources] Kompleksnoe razvitie pro-
myshlennosti ekonomicheskogo raiona i trudovye resursy.
Moskva, Izd-vo "Mysl'," 1964. 90 p. (MIRA 17:6)

LYCHAGIN, V.F.

Fluid flow through a fixed granular bed. Trudy VNIIT no.10:101-
108 '61. (MIRA 15:3)

(Fluid mechanics)

S/672/62/000/011/009/011
D403/D307

AUTHORS: Lobyntsev, Yu. I. and Lychagin, V. F.

TITLE: On the length of a mixing chamber of an ejector

SOURCE: Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut pererabotki i ispol'zovaniya topliva. Trudy. no. 11, 1962. Khimiya i tekhnologiya topliva i produktov yego pererabotki, 254-259

TEXT: The authors utilize an analogy between the deformation of the velocity field in a turbulent stream and in the mixing chamber to obtain an equation expressing the ratio of axial velocities ω/u_{\max} in terms of (r/x) where x is the axis of a cylinder and r its radius, which gives better agreement with experimental data. The equation of continuity and condition of incompressibility within the chamber lead to an expression describing the nonuniformity of the velocity field within the chamber. The relations between the nondimensional length of the chamber \bar{l} and the coefficient of nonuniformity of the velocity field φ and between the concentration

Card 1/2

On the length of ...

S/672/62/000/011/009/011
D403/D307

and temperature fields and velocity field are given, with graphs for $\bar{I} v \cdot \varphi$ (for several values of σ - coefficient of turbulence) and for $\bar{I} v$. the degree of nonuniformity of the temperature field. Finally, the optimal length of the chamber is found to correspond to the minimum of the function $(\mu + \chi)$ where μ - a corrected coefficient of friction, and χ - coefficient of expressing the influence of φ on the impulse transfer. There are 3 figures.

Card 2/2

S/672/62/000/011/010/011
D403/D307

AUTHORS: Lobyntsev, Yu. I. and Lychagin, V. P.

TITLE: Hydraulic computation of a gas ejector by the method of successive approximations

SOURCE: Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut pererabotki i ispol'zovaniya topliva. Trudy. no. 11, 1962. Khimiya i tekhnologiya topliva i produktov yego pererabotki, 260-268

TEXT: The existing methods of computation involve nonlinear algebraic equations with resulting loss of clear physical meaning, and are laborious. The authors attempt to devise a simpler method, assuming all velocities to be subsonic. A general scheme consisting of a high pressure gas ejector, low pressure air supply and a common output is set up and parameters are defined for control cross-section surfaces. Starting with usual gas-dynamic and thermodynamic relations, the authors obtain a set of approximate equations of motion of gaseous hydraulics for a generalized ejector

Card 1/2

Hydraulic computation of ...

S/672/62/000/011/010/011
D403/D307

system. The gas is assumed to be fully compressible, while the air and the mixture are taken as compressible to some degree of approximation, obtained from the power expansion of the square of the characteristic reduced velocity. The discussion of the physical significance of various terms and their range of application is illustrated by a numerical example, which shows that even in the limiting cases 1% accuracy is reached in the 4th approximation. Finally, a further simplification in the computation of compressibility is indicated, and the range is given for which its error is less than 3%. There are 1 figure and 1 table.

Card 2/2

GOZENPUT, M.D.; SHUR, D.P.; LYCHAGIN, V.I., nauchn. red.

[Photorelay in the wood-using industries] Fotorele v derevoobrabatyvaiushchei promyshlennosti. Moskva, TSentr. nauchno-issl. ir-t informatsii i tekhnike-ekon. issledovaniu po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoziaistvu, 1963. 36 p.
(MIRA 17:5)

1. Vsesoyuznyv nauchno-issledovatel'skiy i konstruktorskiy institut derevoobrabatyvayushchego mashinostroyeniya.

GULYAYEV, V.I.; LYCHAGIN, V.I., nauchn. red.

[Automation of the loading and unloading manufactured articles in continuous production lines] Avtomatizatsiia zagruzki i razgruzki izdelii v potochnykh liniakh. Moskva, TSentr. in-t tekhn. informatsii i ekon. issledovaniy po lesnoi, bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1963. 35 p. (MIRA 17:10)

LYCHAGIN, Ya. Ya., Engineer

"An Eccentric Chuck" Stanki I Instrument, 17, No. 12, 1946

Br-52059019

GADASIN, M.M.; GELLERT, I.V.; LYCHAGIN, Ya.Ya.; ROZA, L.I.; BUESHTEYN, I.Yo., laureat Stalinskoy premii; kandidat tekhnicheskikh nauk, retsenzent; KOTLYAROV, M.Z., inzhener, retsenzent; MARTYNOV, N.P., inzhener, redaktor; POPOVA, S.M., tekhnicheskii redaktor.

[Files; design and manufacture] Napil'niki; konstruktsiia i izgotovlenie. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1951. 236 p.
(Files and rasps) (MLBA 8:2)

LYCHAGIN, Ya.Ya.

Casting control transformers in metal moulds. Lit.proisv. no.5:
30-32 Ag '54. (MIRA 7:8)
(Aluminum founding) (Electric transformers)

LYCHAGIN, YA, YA

USSR/ Engineering - Machinery

Card 1/1 Pub. 128 - 27/35

Authors : Lychagin, Ya. Ya.

Title : "Device for trimming grinding wheels

Periodical : Vest. mash. 35/3, 82 - 84, Mar 1955

Abstract : A substitute for the diamond in the trimming and shaping of grinding wheels is to be found in the form of a special disc consisting of a central metallic core onto which is pressed an outer rim consisting of grains of a hard alloy distributed through a binding of glass fiber. The technical specifications and directions for making the disc are presented. Drawings.

Institution :

Submitted :

Лычагин, Я. Я.

USSR/ Engineering - Forging dies

Card 1/1 Pub. 128 - 21/31

Authors : Lychagin, Ya. Ya., Engineer

Title : ~~Preparation of combined dies for the cut out of stator and rotor blades~~
Preparation of combined dies for the cut out of stator and rotor blades

Periodical : Vest. mash. 35/5, 59-62, May 1955

Abstract : The application of cold forging to the manufacture of combined dies for the cut out of stator and rotor blades for small size electric motors is discussed. The combination dies are used mainly for the forging of blades with rigid tolerances. The structural characteristics of the die are described. It was found that the application of optical dividing heads during the manufacture of matrix-dies makes it possible to increase the accuracy of the dies and reduce waste. Drawings; illustrations.

Institution :

Submitted :

LYCHAGIN, Ya. Ya., inzhener.

Manufacture of draw-in attachments. Vest. mash. 36 no.6:55
Je '56. (MLRA 9:10)

(Chucks)

LYCHAGIN, Ya.Ya., inzhener.

Substitutes for diamonds. Vest. mash. 36 no.8:48-50
'56.

(MLRA 9:10)

(Diamonds, Industrial)

LYCHAGIN, YA. YA.

AUTHOR: Lychagin, Ya.Ya., Engineer.

122-3-23/30

TITLE: The Application of the Principle of the Summation of Eccentricities.
(Primeneniye printsipa summiruyushchikhsya ekstsentrisitetov)

PERIODICAL: Vestnik Mashinostroyeniya", 1957, No.3, pp. 59 - 62
(USSR).

ABSTRACT: The geometry of obtaining any desired eccentricity by the appropriate rotation of two eccentrics rotating inside each other is discussed. The application of the principle to an eccentric collet mounted on a morse cone and to an eccentric boring tool holder is illustrated. Formulae are given for the use of angular scales to set up the desired eccentricity; the positioning of the balancing weight is discussed; the eccentric mounting of a three-jaw chuck is shown. There are 9 figures.

AVAILABLE: Library of Congress.
Card 1/1

LYCHAGIN, Ya. Ya.

AUTHOR: Lychagin, Ya. Ya., Engineer.

122-2-13/33

TITLE: The Use of Multi-station Tools (Primeneniye mnogomestnoy osnastki)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, ³⁸No. 2, pp. 42-44 (USSR).

ABSTRACT: An example is illustrated of a press tool to blank the insulating segments for a small motor commutator. The earlier tool which required some dismantling after each operation was replaced by a three-station press tool to work simultaneously on three components. Another example is given of a seven-position press tool with one central and six peripheral positions. A multiple pressure die casting mould is also shown. There are 6 figures.

AVAILABLE: .: Library of Congress
Card 1/1

LYCHAGIN, Ya. Ya.

28(1); 25(1)

PHASE I BOOK EXPLOITATION

SOV/2010

Zholdak, Sergey Afanas'yevich, Yakov Yakovlevich Lychagin, and Vitaliy Semenovich Popov

Tekhnologiya izgotovleniya elektroelementov dlya elektravtomaticheskikh ustroystv
(Manufacturing Processes for Electric Elements of Automatic Electric Systems)
Moscow, Oborongiz, 1959, 423 p. Errata slip inserted, 6,000 copies printed.

Reviewers: N.N. Ushakov, Candidate of Technical Sciences, Docent, and M.M. Zil'bersheyd, Engineer; Ed.: S.A. Abaza, Engineer; Managing Ed.: A.I. Sokolov; Ed. of Publishing House: G.F. Loseva; Tech. Ed.: V.P. Rozhin.

PURPOSE: This book may be useful to engineers and technicians by helping them solve practical problems they meet in their plants, and also for vuz students concerned with the production of electrical elements of automatic electric apparatus.

COVERAGE: The authors discuss the design problems and manufacturing of electric small-size machines used in automatic electric systems. They describe selsyn generators and motors, mag-slips, servomotors and rotary transformers, and modern methods for manufacturing the parts of these machines. They also discuss

Card 1/8

Manufacturing Processes (Cont.)

SOV/2010

the outlook for improving manufacturing methods. Chapters 1, 9, and 14 are written by S.A. Zholdak, chapters 2, 3, 4, 5, 6, 12 by Ya. Ya. Lychagin and 7, 8, 9, 11, 13, 15 by V.S. Popov. The authors thank N.N. Ushakov, M.M. Zil'bersheyd, and S.A. Abaz. There are 45 references; 42 Soviet, 2 German and 1 English (translated into Russian).

TABLE OF CONTENTS:

Foreword	3
Introduction	5
Ch. I. General Information on the Design and Technical Requirements of Small-size Electric Machines	7
Basic technical requirements	7
Selsyns	8
Rotatable transformers (VT)	26
D-c synchronous motors	33
Servomotors	36
A-c motors without commutators	45

Card 2/8

SOV/128-59-4-21/27

18(5)

AUTHOR: Lychagin, Ya.Ya., Engineer

TITLE: Pressure Die Casting of Electric Motor Rotors

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 4, pp 39-40 (USSR)

ABSTRACT: Figure 1 shows a short-circuit rotor with a small electric motor. It consists of the spindle 1, the magnetic conductor packer 2, and of the squirrel cage. Originally the rotor was built by hand which took a lot of time. In this process, aluminum bars were fitted into the slots of the magnetic conductor packet. This work was done by a highly skilled worker and was, therefore, not productive enough. In another design, the rotor was changed. The diameter of the space within the magnetic conductor packet was enlarged and the ventilator was built with a squirrel cage. This made it possible to produce a rotor in a press mold by melting an AL₂ alloy under pressure and with a temperature of 670-700°C. This change to producing the rotor by casting under pressure meant, that productivity was raised about five times, and the waste

Card 1/2

SOV/128-59-4-21/27

Pressure Die Casting of Electric Motor Rotors

was considerably reduced. A second instant of the successful application of casting under pressure is furnished by the rotor of a non-contacting rectifier. The old rotor used in the past consisted of a spindle, two magnet packets, and a piece of synthetic material. The rotor was pressed. Rotors of this kind had a number of deficiencies due to the different coefficient of expansion of the synthetic material and steel, and to the considerable shrinkage of the synthetic material. Figure 3 shows the construction of a rotor which was changed with regard to the casting. The shift from pressing to casting the rotors of non-contacting synchronizers effected a triple increase in production and an important reduction of waste. There are 2 photographs and 3 diagrams.

Card 2/2

LYCHAGIN, Ya.Ya.

Mechanized mold parting in centrifugal casting. Lit.proizv.
no.2:41-42 F '60. (MIRA 13:5)
(Centrifugal casting)

ZENKEVICH, A.A.; LYCHAGIN, Ya.Ya.; POKROVSKIY, N.I., inzh., red.; BASIN,
D.S., red.; NADEINSKAYA, A.A., tekhn. red.

[Small electrical machinery and its use in automatic control systems]
Malogabaritnye elektricheskie mashiny i ikh primeneniye v avtomaticheskikh sistemakh. Pod red. N.I. Pokrovskogo. Moskva, TSentr. biuro tekhn. informatsii, 1960. 161 p. (MIRA 14:10)
(Automatic control) (Electric machinery)

RUBINSHTEYN, Tovi Abramovich; LYCHAGIN, Yakov Yakovlevich; MEDVEDEVA, Ye.T., kand. tekhn. nauk, ved. red.; SOROKINA, T.M., tekhn. red.

[Asbobakelite friction materials with a high and stable friction coefficient. Multiple molds for pressing collectors with "voloknit" plastic]Asbobakelitovye friktsionnye materialy s vysokim i stabil'nym koэфficientom trenia. Mnogomestnye pressformy dlia opressovki kollektorov voloknitom. [By]IA.IA.Lychagin. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 15 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 19. No.M-58-79/2) (MIRA 16:2)
(Plastics—Molding) (Friction materials)

LYCHAK, I.D.

The use of dinas bricks in regenerator chambers. Metallurg no.5:37-38
My '56. (MLBA 9:9)

1. Starshiy master gazovogo khozyaystva domennogo tsekha Magnitogorskogo
metallurgicheskogo kombinata.
(Heat regenerators) (Firebrick)

KARTSEVA, O.P.; LYCHAK, P.P.; SMIRNOVA, V.V.; STARIKOV, G.M., dotsent,
nauchnyy red.:

[Bibliography of scientific works by members of the Smolensk
State Medical Institute, 1920-1959] Bibliografiia nauchnykh
rabot sotrudnikov Smolenskogo Gosudarstvennogo meditsinskogo
instituta, 1920-1959 gg. Smolensk, 1960. 310 p.

(MIRA 14:4)

1. Smolensk. Smolenskiy Gosudarstvennyy meditsinskiy institut.
2. Sotrudniki biblioteki Smolenskogo Gosudarstvennogo meditsinskogo
instituta (for Kartseva, Lychak, Smirnova).
3. Direktor Smolenskogo
Gosudarstvennogo meditsinskogo instituta (for Starikov).

(BIBLIOGRAPHY--MEDICINE)

SINITSYN, V.Ya.; LYCHAR, Z.K.

Considering the nonuniformity of reservoirs in the
determination of oil recovery and the nature of water
encroachment. Trudy UkrNIGRI no.7:166-170 '63.

(MIRA 19:1)

ACC NR: AP0015080

(N)

SOURCE CODE: UR/0413/66/000/009/0087/0087

INVENTOR: Jordan, G. G.; Kurnosov, N. M.; Levinson, B. A.; Lychakov, N. I.;
Tikhomirov, V. P.

ORG: None

TITLE: A radio interference level indicator. Class 42, No. 181326 [announced by the
Scientific Research Institute of Heat and Power Engineering Equipment (Nauchno-
issledovatel'skiy institut teploenergeticheskogo priborostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 87

TOPIC TAGS: liquid level indicator, electromagnetic wave interference, electronically
variable capacitor

ABSTRACT: This Author's Certificate introduces a radio interference level indicator
based on using reflection of high-frequency electromagnetic oscillations from the sur-
face of the medium to be monitored. The unit contains a high-frequency oscillator
connected through a length of transmission line to a coaxial pickup and a measurement
circuit. Measurement accuracy and reliability are improved by connecting an element
in the transmission line with a reactance which depends on the voltage applied to it,
e. g. a voltage-variable capacitor. This element compensates the electrical length
of the line under the effect of a voltage proportional to the level being measured.

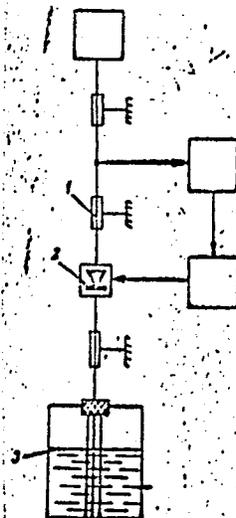
Card 1/2

UDC: 681.128.82

ACC NR: AP6015688

1—transmission line;
2—voltage-variable
capacitor; 3—level
to be measured

SUB CODE: 14, 09/ SUBM DATE: 21Jul64



Card 2/2

USSR/ Miscellaneous - Industrial processes

Card : 1/1 Pub. 71 - 3/17

Authors : Lychev, A. P.

Title : Use of L-19 hoists at the Lenles Lumber Cooperatives

Periodical : Mekh. trud. rab. ⁸4, 9 - 11, June 1954

Abstract : The use of the L-19 hoisting arrangement for loading lumber on R/R flat cars, and the economical advantages derived therefrom, are described. Tables, drawing.

Institution : ...

Submitted : ...

LYCHEV, D.P.

ORLOV, S.F., doktor tekhn. nauk; GOL'DBERG, A.M., kand. tekhn. nauk;
BELOZEROV, Ye.Ya., aspirant; YERSHOV, I.S., inzh.; LYCHEV, D.P.,
inzh.; RAVDIN, P.D.

First attempts at the skidless conveying of timber. Mekh. trud. rab.
11 no.10:6-8 0 '57. (MIRA 10:11)

(Lumber--Transportation)

LYCHEV, G.F.

Neocene mammals of Lake Malyy Kalkaman (Pavlodar area of the Irtysh Valley). Mat. po ist. fauny i flory Kazakh. 4:12-21 '63. (MIRA 16:9)
(Malyy Kalkaman Lake region--Mammals, Fossil)

LYCHEV, V.A.

Studying the chromosome activity in highly inbred *Drosophila*.
TSitologiya 7 no.3:325-333 My-Je '65. (MIRA 18:10)

1. Laboratoriya obshchey tsitologii Instituta biologii i
genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

LYCHEVA, S.I.

Second Congress of the All-Union Microbiological Society.

Izv. AN SSSR Ser. biol. 28 no.5:779-780 S-0'63

(MIRA 16:11)

LYCHEVA, S.I.

Work of the Moscow Branch of the All-Union Microbiological
Society in 1961. Mikrobiologiya 31 no.4:764-766 31-Aug 1962.
(MIRA 18:3)

LYCHEVA, S.I.

Current tasks of microbiology discussed at the 2nd Conference of
the All-Union Microbiological Society. Vest. AN SSSR 33 no.6:
119-121 Je '63. (MIRA 16:7)
(Microbiological societies)

LYCHEVA, S.I.

Work of the Moscow Branch of the All-Union Microbiological
Society of the Academy of Sciences of the U.S.S.R. in 1963.
Mikrobiologiya 33 no.3:554-555 My-Je '64.

(MIRA 18:12)

1. Uchenyy sekretar' Vsesoyuznogo mikrobiologicheskogo
obshchestva.

LYCHEVKO, B.F.

VENDROV, S.L., kandidat geograficheskikh nauk; LYCHEVKO, B.F.;
PATRIKHEV, V.V., kandidat khimicheskikh nauk; PEKISHEV, K.M.

The use of phosphors to study sand drifts along reservoir coasts.
Rech. transp. 16 no.4:26-29 Ap '57. (MLRA 10:5)
(Luminescent substances) (Sand)

LYCHEVKO, G.N.

Changes in the nervous apparatus of the thyroid gland following
the administration of I-131 into the animal organism. Med. rad.
5 no.9:19-22 S '60. (MIRA 13:12)
(THYROID GLAND—INNERVATION) (IODINE—ISOTOPES)

LYCHITSKIY I. V.

TA 49T18

USSR/Geology
Stratification

Oct 1947

"Correlation of the Jurassic and Carboniferous Deposits of the Onon River (Eastern Transbaykal),"
I. V. Lychitskiy, 3 $\frac{1}{4}$ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 3

Briefly describes data obtained by author in 1946, which permits him to make observation that in many parts of the Onon River region the Jurassic strata is not a well-defined layer by itself, but takes on characteristics of the Lower Carboniferous strata and very frequently the Jurassic strata intrudes into the Lower Carboniferous. Submitted by Academician D. S. Belyankin, 22 Apr 1947.

49T18

ACCESSION NR: AP4030648

S/0046/64/028/004/0708/0713

AUTHOR: Khuchua, N.P.; Ly*chkataya, L.F.

TITLE: Concerning the dispersion of the dielectric constant of ferroelectric materials Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May to 5 June 1963/

SOURCE: AN SSSR. Izv.Ser.fiz., v.28, no.4, 1964, 708-713

TOPIC TAGS: ferroelectricity, antiferroelectricity, dielectric dispersion, high frequency dielectric dispersion, ferroelectric dielectric dispersion, antiferroelectric dielectric dispersion, bismuth ferrite ferroelectricity

ABSTRACT: The dielectric constant of the ferroelectric $Pb(Mg_{1/3}Nb_{2/3})O_3$, the anti-ferroelectric $Pb(Mg_{1/2}W_{1/2})O_3$, and a series of solid solutions of $LaFeO_3$ and $LaAlO_3$ in $BiFeO_3$ was measured at frequencies from 10^3 to 10^8 cycles/sec and temperatures between -160 and $300^\circ C$. The low frequency measurements were performed with a bridge, and suitable Q-meters were employed for the high frequency measurements. The dielectric constant of $BaTiO_3$ was also measured as a check; the results obtained for this material agreed with those of A.von Hippel (Revs.Mod.Phys., 22, 221, 1950) and H.Roben-

Card1/3.

ACCESSION NR: AP4030543

horst and J. Milichercik (Ann. Phys., 7, 1, 1261, 1958). $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ is a ferroelectric material of complex structure having a diffuse phase transition. No dispersion was observed above the transition region. Below the transition region the dispersion was considerable; the dielectric constant at 0°C varied by a factor 2 over the frequency range investigated. The temperature of the maximum dielectric constant increased with increasing frequency from -25°C at 10^3 cycles/sec to 25°C at 5×10^7 cycles/sec. The phase angle (between field and polarization) increased with frequency to a maximum at 1.3×10^7 cycles/sec and then decreased with further increase of frequency. Application of a static polarizing field considerably reduced both the dielectric constant and the phase angle at all frequencies, and displaced the dispersion region toward higher frequencies. It is suggested that dielectric dispersion in both BaTiO_3 and $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ is due to motion of the domain walls, including the boundaries between polarized and depolarized regions. The considerable differences between the spectra of the two materials could be the result of differences in friction, restoring forces, and effective mass of the domain walls. The dielectric constant of the antiferroelectric $\text{Pb}(\text{Mg}_{1/2}\text{W}_{1/2})\text{O}_3$ was found to be independent of frequency over the range from 10^3 to 10^8 cycles/sec at all temperatures from -160 to 150°C . This is regarded as a consequence of the known immobility of

Card 2/3

ACCESSION NR: AP4030648

domain walls in antiferroelectrics. The phase angle decreased with increasing frequency. Maxima were observed at low frequencies in the curves of dielectric constant versus temperature for solid solutions of LaFeO_3 and LaAlO_3 in BiFeO_3 . These maxima have been reported by others and have sometimes been regarded as indicative of ferroelectric or antiferroelectric transitions. No such maxima were present at 5.3×10^7 cycles/sec at any temperature between -160 and 200°C . "The authors express their deep gratitude to Prof.G.A.Smolenskiy for his guidance in the work." Orig.art.has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: EM

NR REF SQV: 007

OTHER: 003

Card 3/3

LYCHKIN, V.M.; GRAFSKIY, N.I.; POKOYEVA, P.S.; RAZVIN, V.M.

Proposals of the efficiency promoters of the Saratov Oils and
Fats Combine. Masl.-zhir. prom. 29 no.8:30 Ag '63.
(MIRA 16:10)

COUNTRY : USSR
CATEGORY : Cultivated Plants. M
Potatoes: Vegetables. Cucurbits.
ABS. JOUR. : PZhBiol., No. 3, 1959, No. 10964
AUTHOR : Lyohkin, V. V.
INST. :
TITLE : The Combined Mechanization and Automation of Hothouse Farming.
ORIG. PUB. : Tsvetovodstvo, 1958, No. 1, 26-27
ABSTRACT : No abstract.

CARD: 1/1

LYCHKIN, Viktor Vasil'yevich; KAREV, Viktor Prokof'yevich;
SOKOLOVA, G., red.

[Cultivation of vegetables and green fodder on soil
substitutes] Vyrashchivanie ovoshchei i zelenogo korma
na zameniteliakh pochvy. Moskva, Mosk. rabochii, 1964.
102 p. (MIRA 18:8)

RODNIKOV, N.P. dotsent; LYCHKIN, V.V.

Cucumbers growing on bebbles. *Napka i zhizn'* 28 no.3:47-48 Mr '61.
(MIRA 14:3)

1. Kafedra ovoshchevodstva Moskovskoy sel'skokhozyaystvennoy
akademii imeni Timiryazeva (for Rodnikov). 2. Starshiy agronom
Moskovskogo neftepererabatyvayushchego zavoda (for Lychkin).
(Cucumbers) (Plants--Soilless culture)

KOLOMEYTSEVA, M.B.; LYCHKINA, G.P.; POPOV, V.A.

Study of an automatic control system with a thermal component. Trudy MEI no.49:17-28 '63. (MIRA 17:3)

I 05276-67

ACC NR: AK6023995

SOURCE CODE: UR/0372/66/000/003/G039/G039

AUTHOR: Kushelev, Yu. N.; Lychkina, G. P.

32
B

TITLE: Student design bureau [Teaching machines and programmed teaching]

SOURCE: Ref. zh. Kibernetika, Abs. 3G287K

REF SOURCE: Studencheskoye konstruktorskoye byuro [Obuchayushchiye mashiny i programmirovannoye obucheniye]. Sb. 2. (Tr. Mosk. energ. in-ta, vyp. 58). M., 1965, 186 str.

TOPIC TAGS: programmed teaching, teaching machine, automatic control technology

ABSTRACT: A large part of this anthology is devoted to theoretical and experimental projects dealing with teaching machines and programmed teaching. Considerable attention is paid to the development of new principles of analog-discrete converters and to the design of automatic controllers. Several of the articles deal with theoretical and applied advantages of various devices of computer engineering. V. M. [Translation of abstract]

SUB CODE: 05, 09/

Card 1/1 *egk*

UDC: 62-506:658.386:681.142.2

ALGASOV, V.S., gornyy inzh.; LYCHKO, I.G., gornyy inzh.

Hidden potentialities to serve the seven-year plan. Ugol'
Ukr. 3 no.10:7-10 O '59. (MIRA 13:2)

1. Trest Voroshilovugol'.
(Donets Basin--Coal mines and mining)

LYCHKO, I. G., gornyy inzh.

A rapid advance rate is the basic potential for increasing the
labor productivity. Ugol' 37 no.10:11-13 0 '62.
(MIRA 15:10)

1. Trest Kommunarstkugol'.

(Donets Basin--Coal mines and mining--Labor productivity)

DROGAL', Grigoriy Grigor'yevich; ALGASOV, Vladimir Stepanovich;
LYCHKO, Ivan Grigor'yevich; KITAYSKIY, Ye.V., otv. red.;
MESHCHANKINA, I.S., tekhn. red.

[Rapid crosscutting] Opyt skorostnogo provedeniia gor-
nykh vyrabotok. Moskva, 1962. 27 p. (MIRA 16:8)

1. Tsentral'nyy institut tekhnicheskoy informatsii ugol'noy
promyshlennosti.

(Coal mines and mining)

SUSHCHUK-SLYUARENKO, I.I.; LYCHKO, I.I.

Characteristics of the melting of insulation cushions during
electric slag welding with a consumable electrode. Avtom.
svar. 16 no.8:79-82 Ag '63. (MIRA 16:8)

1. Institut elektrosvariki imeni Ye.O. Patona AN UkrSSR.
(Electric welding--Equipment and supplies)

L 24439-66 EHT(m)/ENP(v)/T/ENP(t)/ENP(k) JD/HM

ACC NR: AP6012279

(N)

SOURCE CODE: UR/0125/65/000/011/0025/0027

AUTHOR: Sushchuk-Slyusarenko, I. I.; Lychko, I. I.

30

B

ORG: Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Optimum conditions for electroslag welding where accuracy is required in the dimensions of the finished product

SOURCE: Avtomaticheskaya svarka, no. 11, 1965, 25-27

TOPIC TAGS: electroslag welding, structural steel, welding technology

ABSTRACT: The authors study consumable-tip electroslag welding to determine optimum conditions for a high quality joint with maximum accuracy in the predetermined dimensions of the finished product. The basic parameters considered are voltage, feed rate of the electrode wire (or welding speed), number of electrodes, width of the weld gap, depth of the slag bath and thickness of the consumable tip. Since the depth of the slag bath, thickness of the tip, and to a certain extent the weld gap are independent of the other welding parameters, these factors were assumed to be constant. It is shown that an increase in the feed rate up to a certain critical limit does not produce cracks in the joint even when the counteraction is high. Cracks appear in the joints at rates above this critical limit which decrease as the counteracting moment

UDC: 621.791.756

Card 1/2

L 24439-66

ACC NR: AP6012279

increases. A critical feed rate of 120-140 m/hr (for thicknesses of 150-500 mm) is recommended for preliminary calculations on the basis of the experimental data. The following parameters are recommended for maximum accuracy in the final dimensions when consumable-tip electroslag welding is used for joining structural steels in thicknesses of 150-500 mm: welding speed-- 0.5 ± 0.02 m/hr, voltage-- 46 ± 1 v, width of the weld gap--28-30 mm, depth of the slag bath--45-50 mm, width of the consumable tip--4-6 mm, distance between electrodes--50-60 mm and number of electrodes-- $n = (\delta-40)/d$ where δ is the thickness of the metal in mm. AN-8 flux should be used. The temperature field is measured for determining deformation during welding and a diagram of the quasi-stationary temperature field is given. Orig. art. has: 2 figures, 4 formulas.

SUB CODE: 13/ SUBM DATE: 14May65/ ORIG REF: 004/ OTH REF: 000

Card 2/2 *dda*

L 37773-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD
ACC NR: AP6028844 SOURCE CODE: UR/0125/66/000/003/0055/0056

AUTHOR: Ishchenko, A. Ya.; Lychko, I. I.

ORG: Institute of Electric Welding in. Ye. O. Paton, AN UkrSSR (Institut elektro-svarci AN UkrSSR)

TITLE: Electroslag level control for aluminum castings using consumable electrodes with large diameters

SOURCE: Avtomaticheskaya svarka, no. 3, 1966, 55-56

TOPIC TAGS: metal casting, electroslag melting, aluminum containing alloy, slag, metallurgic process, temperature gradient, electrolytic refining

ABSTRACT: Shrinkage heads use up a considerable amount of metal in the production of cast articles from aluminum alloys. The shrinkage heads on ingots may be considerably reduced and in some cases completely eliminated by electroslag level control which reduces the shrinkage cavity. The parameters of the electroslag process determine the shape and size of the shrinkage cavity as well as the effective metal yield. Of greatest interest is the relationship between voltage, current, depth of slag bath and dimensions of the shrinkage cavity. These parameters determine the thermal conditions of the level control process. These conditions affect the volume and shape of the liquid metal bath which are the final factors in determining the size of the shrinkage cavity. The time of the electroslag level control process and the quantity of metal added depend, in each specific case, on the size and shape of the casting.

Card 1/2

UDC: 621.791.9.042

0917 2364

L 37773-66

ACC NR: AP6028844

Experimental ingots 250-280 mm high were poured into a water-cooled steel mold measuring 140 mm in diameter. Level control was done with electrodes measuring 60 mm in diameter made of alloy AV with voltages of 25, 28 and 31 v and electrode consumption rates of 2.7, 3.6, and 4.2 m/hr. Average time required for the process was 15 minutes. Slag baths 40, 70, and 100 mm deep were produced by melting AN-Al flux. The temperature gradient was reduced by increasing the voltage of the level control process.

It is pointed out that the temperature gradient may also be reduced by changing the depth of the slag bath. This produces an effect similar to that observed when the voltage is increased. An increase in the depth of the slag bath reduces the temperature of drops of electrode metal passing through the layer of cooled slag. This reduces the temperature and volume of the metal bath.

Practical minimization of the shrinkage cavity is achieved by using the highest permissible voltage and the deepest possible slag bath. The voltage should be no higher than 30 v when chloride-fluoride fluxes are used. Otherwise the slag around the electrode begins to boil and the process is interrupted. It is not advisable to use a slag bath deeper than 100 mm since this causes a considerable increase in nonproductive heat losses. The current and corresponding electrode feed should be kept to a minimum, but should be sufficient to melt enough metal for filling the shrinkage cavity. Orig. art. has: 4 figures and 3 tables.

[JPRS: 36,17]

SUB CODE: 11, 13 / SUBM DATE: 02Jun65 / ORIG REF: 003

Card 2/R/mclp

L 33543-65 EPA(s)-2/ENI(m)/ENP(v)/T/ENP(t)/ENP(k)/ENP(b)/ENA(c) Pf-4 JD/HM
ACCESSION NR: AP5009174 S/0125/64/000/011/0082/0085

AUTHOR: Voloshkevich, G. Z.; Sushchuk-Slyusarenko, I. I.; Lychko, I. I.

TITLE: Electroslag welding with a partially consumable electrode tip

SOURCE: Avtomaticheskaya svarka, no. 11, 1964, 82-85

TOPIC TAGS: electroslag welding, welding electrode, electroslag melting

ABSTRACT: In present electroslag welding processes seams are welded with quantities of weld metal exceeding 1000 kg and welding times extending to 30 to 40 hours. The Institute of Electric Welding has developed a coiled wire electrode tip the end of which is allowed to melt into the weld metal (G. Z. Voloshkevich, "Electrode for Electroslag Welding", description of invention, author's certificate No 1311847; Byulleten' izobreteniy Bulletin of Inventions, No 18, 1960).

Instead of using adjustment devices, the proper feeding of the electrode wire is governed by the fact that the electrode tip almost reaches the slag bath, but as a rule does not touch it. When the end of the tip becomes excessively eroded, the level of the slag is raised slightly and the worn end is melted off. Continuous operating time of the tip depends on the length

Card 1/3

27
25
B

L 33543-65

ACCESSION NR: AP5009174

of the melting part (lifetime can be increased considerably as compared to that of constant-contact control tips).

The new method differs from welding with a consumable tip in that the partially melting tip is simple to make and needs no expensive or scarce materials. After several welds the electrode tip is restored by manually welding new replaceable end section, is much simpler than maintenance of a control tip and costs much less than control or completely consumable tips.

For comparatively short partially melting tips, melting can be accomplished by raising the level of the slag bath with respect to the slide bar. When a long section is to be melted off, a device is required to raise the slide bar with respect to the feeder mechanism carriage and the tips.

During melting of electrode wire the current-carrying plate of the bottom tip is allowed to overhang the slide bar, since excessive departure of the electrode wire from the slide can result in local incomplete melting of the parent metal edges. The electrode wire can be kept close to the bar by raising the meniscus on the surface of the slag. If the plate is toward the inside of the welding space the level of the slag bath surface can be below the top of the slide, but the end of the tip is eroded much more rapidly and requires more frequent replacement. A strip of metal 4 to 5 mm wide is welded on the other side of the tip to strengthen it. The area of this reinforcement is governed by the current heating conditions and should

Card 2/3

L 33543-65

ACCESSION NR: AP5009174

be 180 to 200 mm².

The fusible length of the tip is calculated to be 15 to 20 mm per meter of weldment. When welding with the partially melting tip there is a sharp increase in the quantity of molten filler metal when the tips are being melted. Electroslag welding with a consumable tip is considered in this paper only from the standpoint of the quantity and the rate of feed of the electrode wire. During rare instances when the tip is being melted (once per 0.8 to 1 meter of seam), the welding rate should be very slow to avoid hot cracks. However, a more detailed examination of hot crack formation indicates that a brief increase in power is less injurious than slow welding. When the power is suddenly increased, the depth of the molten weld metal does not change instantaneously, and therefore the excess power goes to broadening the heated zone, which then narrows to the steady-state value. Experiments confirmed this assumption. Orig. art. has: 3 figures.

ASSOCIATION: Institut elektrosvariki im. Ye. O. Patona AN UkrSSR (Institute of Electric Welding, AN UkrSSR); Uralmasu im. S. Ordzhonikidze

SUBMITTED: 22May64

ENCL: 00

SUB CODE: IE, MM

NO REF SOV: 003

OTHER: 000

JPRS

Card 3/3

SUSHCHUK-SLYUSARENKO, I.I.; LYCHKO, I.I.

Optimum conditions of electric slag welding providing for
the dimensional accuracy of products. Avtom.svar. 18
no.11:25-27 N '65. (MIRA 18:12)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.
Submitted May 14, 1965.

L 07953-67 EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k) JD/HM

ACC NR: AP6032494

SOURCE CODE: UR/0413/66/000/017/0047/0048

23
B

INVENTOR: Voloshkevich, G. Z. ; Lychko, I. I.

ORG: none

TITLE: Method of electroslag surfacing of nonferrous metals on ferrous metals.
Class 21, No. 185420

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966,
47-48

TOPIC TAGS: nonferrous metal, ferrous metal, electroslag surface

ABSTRACT: An Author Certificate has been issued for a method of electroslag surfacing of nonferrous metals on ferrous metals. To prevent iron diffusion in the surfacing metal, the temperature of the slag bath is reduced to below the melting point of the ferrous metal. For keeping the slag bath at a constant temperature, a resistor is introduced into the welding circuit, the value of which is selected in such a manner that the partial derivative of the power produced with respect to temperature will be positive, but will not exceed the partial derivative of power efficiency with respect to temperature. [Translation]

Card 1/1 SUB CODE: 11/ SUBM DATE: 09Apr62/ UDC: 621.791.793:621.92

LEVTOVA, K.Z.; BESSMERTNYI, B.S.; LYCHKO, N.D.

Reviews and bibliography. Zhur.mikrobiol., epid. i immun. 42
no.9:155-157 S '65. (MIRA 18:12)

L 11381-67 EWT(1) SCTB DD/GD SOURCE CODE: UR/0000/66/000/000/0075/0076
ACC NR: AT6036505

AUTHOR: Britvan, Ya. M.; Lychko, V. G.; Belkaniya, Yu. S. 20

ORG: none

TITLE: Electrophysiological investigations of the central mechanisms of gravitational collapse [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 75-76

TOPIC TAGS: brain bioelectricity, orthostatic test, human physiology, electroencephalography, biologic acceleration effect

ABSTRACT: The present paper contains an analysis of data on the relationship between the development of orthostatic collapse, more properly termed gravitational collapse, and the initial functional state of the cortex and subcortical parts of the brain as determined from bioelectric activity. Collapse was induced in cats by keeping them in a head-upward body position, which involves greater gravitational stress than a horizontal position. Changes in the functional state were produced by means of anes-

Card 1/4

B 11381-67

ACC NR: AT6036505

0

thetics, blockade of the reticular formation, elimination of proprioception, vestibular de-afferentation, and by placing the animal in a preliminary position with the head down. Brain bioelectric activity was recorded with an 8-channel EEG manufactured by the "Alvar" Company. Potentials were taken off from the sensorimotor and occipital regions of the brain, specific nuclei of the thalamus and anterior hypothalamus, the midbrain reticular formation, and the pons variolli. Arterial pressure and respiration were recorded simultaneously with brain biocurrents.

The experiments showed that in cats of the control series of experiments, prolonged maintenance of a vertical position results, after 6 to 10 hrs, in severe gravitational collapse with complete extinction of brain bioelectric activity, a drop in arterial pressure to 20--30 mm Hg, and terminal respiratory dysfunctions. The following stages were observed in brain bioelectric activity changes: initial desynchronization, a mixed wave phase, slow activity dominance, "zones of silence", and complete extinction. In the slow activity phase there appeared third-order waves of arterial pressure and periodic respiration, reflecting a state of threat and the struggle of basic nervous processes. Cortical--subcortical

Card 2/4

E 11381-67

ACC NR: AT6036505

interactions produced nonuniform results at various stages of collapse, depending on the rapidity with which collapse developed. General diffuse inhibition of biopotentials was often seen long before the appearance of significant arterial hypotension. The function of the respiratory center was frequently impaired more seriously than that of the vasculomotor center.

In ether-anesthetized cats, the onset of gravitational collapse was considerably faster. Changes in bioelectric activity appeared at different times in the various brain centers. Respiratory excitation was not seen in the initial period. Aminazine in a dose sufficient to blockade the reticular formation of the brain stem did not prevent the development of collapse; the appearance of frequent spikes of high voltage spindle-type rhythms in all leads was characteristic. It should be noted that biopotentials often persisted into the stage of considerable arterial pressure drop accompanied by profound respiratory distress.

Card 3/4

L 11381-67

ACC NR: AT6036505

In cats curarized with listeron, as in cats subjected to bilateral vestibular de-afferentation and cats kept for 1 to 1.5 hrs before the experiment in a head-down position, gravitational collapse developed rapidly, within 1 hr. The initial desynchronization was less pronounced and certain of the above-described bioelectric activity phases did not appear. It was often possible to produce collapse for a second time in the same animal after a short period.

Thus, our investigations demonstrate the existence of regularities in the bioelectric reactions of the brain to changes in the gravitational field vector. It was shown that the rapidity of development and severity of gravitational collapse depend on the initial functional state of the central nervous system, which determines the capacity to mobilize antigravitational mechanisms. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 4/4 egk

LYCHKOVSKAYA, I.V., kand. tekhn. nauk; VITSINSKIY, V.V., dots.,
red.

[Theory and the structural design of a ship] Teoriia i
ustroistvo korablia; uchebno-metodicheskoe posobie po
vypolneniiu kursovogo proekta dlia studentov ekspluata-
tsionnoi spetsial'nosti. Gor'kii, Gor'kovskii in-t inzhe-
nerov vodnogo transporta, 1962. 53 p. (MIRA 16:9)
(Naval architecture)

USHERENKO, N.I.; LYCHKOVSKAYA, Ye.V.

Results of isolating and typing the poliomyelitis virus in HeLa cells in Odessa. Vop. virus. 5 no. 1:25-26 Ja-F '60.

(MIRA 14:4)

1. Odesskiy institut epidemiologii i mikrobiologii imeni I.I. Mechnikova.

(ODESSA--POLIOMYELITIS)

LYCHKOVSKAYA, Ye. V., Cand. Medic. Sci. (diss) "Test of Appearance of Antigen (of Virus) in Some Discharges of Patients with Epidemic Hepatitis with Aid of Reaction of Complement Fixation," Odessa, 1961, 11 pp. (Odessa Med. Inst.) 300 copies (KL Supp 12-61, 286).

GIMMEL'FARB, Ya.K. (Odessa); BYCHKO'SKAYA, Ye.V. (Odessa)

Carriage of viruses in epidemic hepatitis (Botkin's disease)
and its epidemiological importance. Vop.nad.virus. no.9:183-
187 '64. (MIRA 18:4)

LYCHKOVSKIY, B.P.

Review of some magnetometric studies in the regions of active volcanoes.
Trudy Sakh.kompl.nauch.-issl. inst. AN SSSR no.10:160-167 '61.
(MIRA 15:6)

(Volcanoes) (Magnetometer)